United States Department of Agriculture

Animal and Plant Health Inspection Service

National Wildlife Research Center

Wildlife Services Seeking Solutions Through Research

Protecting Livestock through Selective Coyote Sterilization

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National Wildlife Research Center Scientists Address Coyote Predation

Wildlife Services' (WS) National Wildlife Research Center (NWRC) is the only Federal research facility devoted exclusively to resolving conflicts created by the interaction of wildlife and humans through the development of effective, selective, and acceptable methods, tools, and techniques. One of NWRC's field stations is located in Logan, Utah, and is the leading coyote ecology research complex in the world.

Coyotes are a major predator of domestic sheep and lambs. Management of these losses typically involves the local reduction of coyote populations. Fertility control may be an effective and economical method to impact such reductions. The goal of this project is to determine whether sheep losses to predation can be reduced by sterilizing coyotes on territories where sheep and other livestock are pastured. Immunological and behavioral studies will be field tested in this research.

Groups Affected by These Problems:

Livestock producers
Livestock product distributors and retailers
Consumers

Applying Science and Expertise to Wildlife Challenges

Behavioral Studies—NWRC scientists are identifying coyote pairs in the wild that are attacking sheep, surgically sterilizing and radio-collaring them, and studying their behavior to see if they maintain pair bonds, defend territories, and kill fewer sheep. The belief is that coyotes that have no pups are less likely to prey on sheep, but will instead prey on rodents or snakes. A similar study is ongoing that compares captive coyotes that are chemically and/or immunologically sterilized to captive control animals.

Coyote Control through Commercially Available Chemical Sterilants—Because of the large coyote population in Texas, certain areas have been identified where draw stations can be set up to deliver reversible chemical sterilants. These stations are being established 3-6 weeks before coyote breeding season, and the results of treated versus nontreated areas is being monitored relative to coyote abundance and predation losses.

Major Research Accomplishments:

WS demonstrated that surgical sterilization of adult coyotes significantly reduces killing behavior toward sheep.

WS obtained data to show that surgically sterilized adult coyotes maintain territories and thus exclude other coyotes.

Selected Publications:

Robbins, L.A., J.R. Mason and P.D. Fowkes. 2000. An Apparatus for Studying Operant Activity of Captive Coyotes. *Behavior Research Methods, Instruments and Computers* 32(4): 566-571.

Seglund, A.E., T. DeLiberto and B. Kimball. 2000. Evaluation of Cabergoline As a Reproductive Inhibitor for Coyotes (*Canis Latrans*). Proceedings of 19th Vertebrate Pest Conference, March 6-9, 2000, San Diego, CA. pp.319-324.